

REMARKS

In the Action, claims 12-36 are rejected. By this Amendment, claims 12, 26 and 30 are amended. The pending claims in this application are claims 12-36, with claims 12, 26 and 30 being independent. In view of the following comments, reconsideration and allowance are requested.

Independent claims 12, 26 and 30 are amended to recite that the ferromagnetic coating extends directly on and is embedded in a surface of the fleece. The claims are also amended to recite that the fleece covers a substantial portion of the mold wall surface. These features are either expressly or inherently supported by the specification and drawings as filed.

Rejections Under 35 U.S.C. § 103

In the Action, seven separate rejections are made based on various combinations of eight cited references. The combination of such a large number of patents suggests the non-obviousness of the invention, particularly in view of the relative simplicity of the claimed invention.

Claims 12, 18, 19, 21, 22 and 24-34 are rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 4,784,890 to Black in view of U.S. Patent No. 5,286,431 to Banfield et al. and optionally German Patent DE 3540648 to DePhilipp et al. Black is cited for disclosing a method of embedding a fastener assembly within a foam element. The Action refers to a base material 22 having an upper surface attached to a plastic fastener 12 and a ferromagnetic coating 24. The Action further suggests that Black discloses a method where the fastener assembly conforms to the contour of the mold. Banfield et al. appears to be cited for

disclosing a ferromagnetic coating on the substrate of the fastener. DePhilipp et al. is cited for disclosing the use of a fleece in a foam element.

Black relates to a method for attaching a fastener member to a foam body. As shown in Figure 1, the fastener of Black includes a backing strip 12 having a “temporary attachment layer 24” attached to the bottom side of the backing strip. The temporary attachment layer of Black is a ferromagnetic material sandwiched between the surface 16 of the backing strip and the permanent attachment layer 22. An adhesive layer 23 completely covers the backing strip 12 and the ferromagnetic layer 24 forming the temporary attachment layer. The adhesive layer bonds the fastener and the temporary attachment layer to the “permanent attachment layer” 22. The permanent attachment layer 22 can be a fibrous material such as a non-woven mat. The fastener is position in the mold by the ferromagnetic temporary attachment layer with the temporary attachment layer and the permanent attachment layer facing outwardly from the mold surface. The foam contacts and bonds to the permanent attachment layer. The result is a foam element having a fastener with a ferromagnetic layer positioned between the fastener and the adhesive where the adhesive is bonded to the permanent attachment layer and the permanent attachment layer is bonded to the foam.

The art of record does not disclose or render obvious the method of the claimed invention. Specifically, the art of record does not disclose a method of producing a foam element by placing a flexible fleece with a ferromagnetic coating directly on the wall of the foam where the ferromagnetic coating is directly on and embedded in the surface of the fleece, as recited in amended claim 12, such that the coating is exposed in the finished product. The art of record further fails to disclose the fleece covering a substantial portion of the wall of the foam

mold so that the fleece is embedded in the molded foam element to form a barrier layer where the ferromagnetic coating is embedded in the fleece. Accordingly, independent claims 12, 26 and 30 are not obvious over the combination of the cited patents.

Black specifically discloses the ferromagnetic material attached to the base or backing strip of the fastener. The fastener is then attached to the permanent attachment layer 22 by an adhesive. The ferromagnetic material forming the temporary attachment layer is coated on the backing strip of the fastener and is not coated directly on the surface of the fleece as recited in the claims, and thus, is not exposed in the finished product exiting the mold. Furthermore, the ferromagnetic coating or temporary attachment layer is clearly not embedded in the fleece as recited in the claims as amended. Furthermore, Black discloses a single fastener positioned within the mold for attaching a fastener to a molded foam element where the fastener has a dimension significantly less than the dimension of the molded foam element. Thus, Black fails to disclose or suggest the fleece covering a substantial portion of the wall of the mold as claimed.

The Action further suggests that Black discloses the fastener conforming to the contour of the mold. The mold surface of Black has a recess having a dimension sufficient to receive the fastener such that the hooks of the fastener extend beyond the surface of the molded foam element. The recess has a shape corresponding to the existing shape of the fastener. There is no suggestion that the fastener of Black conforms to the shape of the mold surface as suggested in the Action. Furthermore, there is no suggestion that the permanent attachment layer is flexible to conform to the shape of the mold surface.

The Action further suggests that Black teaches that the ferromagnetic coating can be applied directly to the substrate and cites column 3, lines 44-65. This passage refers to the

expansion between the temporary attachment layer and the strip material. There is no suggestion of applying the temporary attachment layer directly to the assembly as suggested in the Action.

Banfield et al. is cited for disclosing an elastomeric coating containing iron particles that encapsulate the hooks of the fastener. The elastomeric coating prevents the fastener from contacting the foam material during the molding process. Banfield et al. provides no suggestion or motivation to apply a ferromagnetic coating directly on a fleece. Furthermore, Banfield et al. provides no suggestion to modify Black to apply the ferromagnetic coating directly to the fleece since both patents only disclose applying the ferromagnetic coating to the fastener and not to a fleece as in the claimed invention.

DePhilipp et al. is cited for disclosing the use of a fleece material. The rejection is based on the position that it would be obvious to apply the ferromagnetic coating to a fleece.

DePhilipp et al. does not disclose or suggest applying a coating or ferromagnetic material on a fleece and does not disclose the use of magnets or ferromagnetic material for positioning the fleece in the mold. Since none of the cited patents disclose applying a ferromagnetic material directly on a fleece and embedding the ferromagnetic material in the fleece as claimed, the combination of the cited patents fail to render the claimed invention obvious.

Moreover, none of the cited patents disclose or suggest the use of a fleece in a mold to cover a substantial portion of the mold surface where the fleece includes a ferromagnetic coating. Accordingly, independent claims 12, 26 and 30 are not obvious over the combination of Black, Banfield et al. and DePhilipp et al. The combination of the cited patents also fails to disclose the ferromagnetic coating being applied to the fleece by a blade as in claim 18, a nozzle as in claim

19, the spreadable material as in claim 21, or directing the fleece through a dryer after application of the ferromagnetic material as in claim 22.

The combination of the cited patents also fail to disclose applying the ferromagnetic material on a surface of the barrier layer remote from the body of foam material as in claim 27, the surface of the barrier layer embedded in the surface of the foam body as in claim 28, the inner surface of a fleece free of a ferromagnetic material as in claim 29, either alone or in combination with the features of the foam element of independent claim 26. The cited patents also fail to disclose the permanent magnets to secure the flexible fleece to the mold as in claim 31, the permanent magnets being positioned on the exterior surface of the mold as in claim 32, the permanent magnets securing the fleece to the contour of the mold during molding as in claim 33 or the flexible ferromagnetic coating forming a wear resistant layer on the fleece as in claim 34, in combination with the method of forming the foam element of independent claim 30.

Accordingly, claims 12, 18, 19, 21, 22 and 26-34 are not obvious over the combination of Black in view of Banfield et al. and DePhilipp et al.

Claims 13-17 are rejected as being obvious over Black, Banfield et al. and optionally DePhilipp et al, and further in view of EP 457226 to Von et al. Von et al. is cited for disclosing the use of a polyester fleece. However, Von et al. provides no suggestion of using a fleece coated with a ferromagnetic material to position the fleece on a mold surface. Therefore, Von et al. does not disclose the polyester fleece of claims 13 and 14 in combination with the method of producing a foam element of claim 12. Von et al. further fails to disclose a ferromagnetic coating having a composition comprising polyurethane and ferrite powder as in claims 15, 16

and 17, in combination with the method steps of claim 12. Accordingly, these claims are allowable over the art of record.

Claims 20 and 23-25 are rejected as being obvious over Black, Banfield et al., DePhilipp et al. and further in view of U.S. Patent No. 2,909,442 to Persoon and U.S. Patent No. 3,497,411 to Chebiniak. Persoon and Chebiniak are cited for disclosing methods of applying coatings to a substrate. Persoon and Chebiniak are not directed to methods of making foam products, attaching a ferromagnetic coating to a fleece for holding a flexible fleece in a mold or molding a foam material onto the fleece such that the fleece is embedded in the foam. Therefore, Persoon and Chebiniak do not disclose the step of applying a spreadable ferromagnetic coating as in claim 20, applying the ferromagnetic coating with an applicator as in claim 23, drying the fleece as in claim 24, or separating the carrier from the fleece as in claim 25 either alone or in combination with the method steps of claim 12. Accordingly, these claims are not obvious over the combination of the cited art.

Claims 12, 18, 19, 21, 22, 26-30 and 34-36 are rejected as being obvious over the alleged admitted prior art in view of Banfield et al., JP 386102 to Harada and optionally JP 1152017 to Sugimoto. The rejection is based on the position that it would be obvious to one of ordinary skill in the art to apply a ferromagnetic coating as in Banfield et al. onto the barrier layer of the alleged admitted prior art. For the reasons discussed above, Banfield et al. does not suggest applying a ferromagnetic coating onto the fleece or onto any other flexible material capable of forming a barrier layer. Banfield et al. only discloses applying the elastomeric material containing metal particles to a non-porous fastener article. Banfield et al. provides no motivation or incentive to one of ordinary skill in the art to apply a ferromagnetic coating to a fleece such

that the ferromagnetic coating is embedded in the fleece and directly contacts the mold as recited in the independent claims. Harada is cited for disclosing a barrier layer on a molded foam material. Sugimoto is cited for disclosing applying a piece of metal foil onto a fabric by tacking or other means. Thus, Sugimoto is an example of the prior processes that the present invention seeks to obviate. Contrary to the suggestion in the Action, Sugimoto does not disclose applying a coating of a ferromagnetic material. Banfield et al., Harada and Sugimoto provide no motivation or incentive to one of ordinary skill in the art to apply a coating of the ferromagnetic material directly to a fleece as in the alleged admitted prior art such that the ferromagnetic coating is embedded in the fleece as claimed.

Banfield et al., Harada and Sugimoto provide no suggestion of applying the ferromagnetic coating to the fleece by a blade as in claim 18, a nozzle as in claim 19, the ferromagnetic coating being a spreadable material as in claim 21, drying the ferromagnetic coating as in claim 22, either alone or in combination with the method steps of claim 12.

The secondary references also fail to disclose the ferromagnetic coating on the surface of a barrier layer remote from the molded foam material as in claim 27, the surface of the barrier layer embedded in the surface of the foam being free of the ferromagnetic coating as in claim 28, the inner surface of the fleece being free of the ferromagnetic coating as in claim 29, in combination with the foam element of claim 26. The secondary references also fail to disclose the flexible ferromagnetic coating being a wear resistant layer on the fleece as in claim 34, the coating extending entirely across the surface of the fleece as in claims 35 and 36, in combination with the method steps of claims 12 and 30.

Claims 13-17 are rejected under 35 U.S.C. § 103(a) as being obvious over the alleged admitted prior art, Banfield et al., Harada and optionally Sugimoto, and further in view of Von et al. For the reasons previously discussed, Von et al. does not disclose or suggest the polyester fleece of claims 13 and 14, and the composition of the ferromagnetic coating of claims 15-17. The Action provides no basis for the features of these claims being obvious to one of ordinary skill in the art. The cited references either standing alone or in combination do not disclose or suggest these features. Accordingly, claims 13-17 are not obvious over the art of record.

Claims 20 and 23-25 are rejected as being obvious over the alleged admitted prior art, Banfield et al., Harada, Sugimoto and further in view of Persoon and Chebiniak. For the reasons discussed above, Persoon and Chebiniak do not disclose or suggest the features of these claims and thus do not render the claims obvious when taken in combination with the independent claims. Accordingly, these claims are allowable over the art of record.

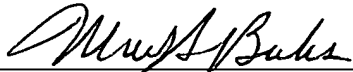
Claims 31-33 are rejected as being obvious over the alleged admitted prior art, Banfield et al., Harada, Sugimoto and further in view of Black. Black appears to be cited for disclosing the use of permanent magnets in the mold to hold the edges of the flexible fleece during molding. As discussed above, Black is directed to a method of attaching a fastener element to a foam material. The fastener is not flexible and includes a single magnetic material for positioning the fastener in the mold. Black does not disclose the use of a plurality of magnets to hold a flexible fleece in the mold as suggested in the Action. Accordingly, the combination of the cited art does not render claims 31-33 obvious.

In summary, the cited art either standing alone or in combination do not disclose the ferromagnetic coating applied to the fleece and embedded in the surface of the fleece to hold the

fleece in the mold surface during the molding of the foam material. The combination of the cited art also fails to disclose a fleece having a dimension covering a substantial portion of the mold surface where the fleece includes a ferromagnetic coating on the surface opposite the surface that contacts the foam body.

In view of these amendments and the above comments, the claims are submitted to be allowable over the art of record. Reconsideration and allowance are requested.

Respectfully submitted,


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